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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,462	04/24/2001	Werner Obrecht	Mo-6025/LeA 34,439	5368

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EXAMINER

HU, HENRY S

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/12/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,462

Applicant(s)

OBRECHT ET AL.

Examiner

Henry S. Hu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Amendment (Paper No. 6) filed on June 30, 2003. Claims 1, 6 and 7 were amended. Non-elected Claims 8-16 were cancelled. Specifically, Claims 1 and 7 were amended to change the language of **“particles of polybutadiene rubber”** to **“polybutadiene rubber gels”**, while the trade name **Si 69** in Claim 6 as pointed out in 112-second paragraph rejection was changed to a real chemical name.

The examiner confirms the support of Claims 1 and 7 regarding the use of “gel” in **page 4 at lines 21-28** of specification. No new matter was added. A new abstract with single paragraph was submitted on page 21. With respect to specification objection (b), the paragraph beginning in page 6 at line 22 was replaced with a new one. In view of above amendments, both the specification objection and 112-second paragraph rejection are now removed. **Since the parent Claim 1 has only changed on the form of polybutadiene from “particle” to “gel”, the 102 (b) and 103 (a) rejections of previous Office Action filed on March 31, 2003 as Paper No. 5 is thereby sustained. Claims 1-7 are now pending. An action follows.**

Response to Argument

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2. Applicant's Amendment (Paper No. 6) filed on June 30, 2003 has been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows:

Claim Rejections - 35 USC § 103

3. *The limitation of amended **parent Claim 1** in present invention relates to rubber compounds comprising at least one double bond-containing rubber (A) and **polybutadiene rubber gels** with a glass transition temperature of $<-60^{\circ}\text{C}$ (B), whereby component (B) is present in quantities of 10-150 wt%, relative to the total quantity of component (A), and optionally other fillers and rubber auxiliary substances in conventional quantities.*

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Well (US 5,905,107) for the same reason recited in the action dated on 03-12-2003.

Applicants: Applicant has claimed an unexpected way of obtaining rubber compounds comprising at least **one double bond-containing rubber and polybutadiene rubber gels with a glass transition temperature of $<-60^{\circ}\text{C}$** , and optionally other fillers and rubber auxiliary substances in conventional quantities. The prior art of Well only discloses polybutadiene and with no disclosure of gel with a glass transition temperature $<-60^{\circ}\text{C}$. (See Applicants' amendment on page 6, lines 1-13).

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5. **Examiner:** Regarding the limitation of parent Claim 1, the primary reference Well has disclosed that unvulcanized rubber mixture comprises a **styrene-butadiene-copolymer (S-SBR)**, up to 45 phr of **polybutadiene (BR)**, silicic acid, and various additives such as carbon black, processing aid, softener, and anti-aging agent can be included.

It is noted that Well does not disclose a Tg temperature for the above-mentioned polybutadiene. In a close reexamination, it is found by examiner that **glass transition temperatures of polybutadiene polymers actually fall in the claimed range of $<-60^{\circ}\text{C}$** . In the **Aldrich Chemical catalog**, the compound 18137-4 cis-polybutadiene has a Tg of -102°C and the compound 18138-2 cis, trans-polybutadiene has a Tg of -95°C .

Whether the material is called “a polybutadiene, a polybutadiene rubber, particles of polybutadiene rubber, or polybutadiene rubber gels” is **simply a matter of nomenclature since the Applicant is entitled to be his/her own lexicographer**. According to MPEP 2173.01, the Applicant can define in the claims whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art. Therefore, Claims 1-3 and 5-7 are rejected for the same reason recited in the action dated on 03-12-2003.

6. Claims 1-3, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sandstrom et al. (US 5,534,574) for the same reason recited in the action dated on 03-12-2003.

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Applicants: Applicant has claimed an unexpected way of obtaining rubber compounds comprising at least **one double bond-containing rubber and polybutadiene rubber gels with a glass transition temperature of $<-60^{\circ}\text{C}$** , and optionally other fillers and rubber auxiliary substances in conventional quantities. The prior art of Sandstrom only discloses polybutadiene and with no disclosure of gel with a glass transition temperature $<-60^{\circ}\text{C}$. (see Applicants' amendment on page 6, lines 14-29).

7. **Examiner:** Regarding the limitation of parent Claim 1, the primary reference Sandstrom et al. have disclosed that a silica reinforced rubber composition comprises: a rubber or a mixture of rubbers selected from **E-SBR, S-SBR, NR, BR and IR**, a **polybutadiene rubber** selected from various butadiene copolymers, a variety of **silica** selected from various sources, and **various additives** such as carbon black, curing aid, softener, and activator. Sandstrom et al. have further disclosed that **several examples demonstrated with specific rubber compositions comprise the above components (A), (B), (C) and (D) in Table 3** with the amounts for each component being used in conventional quantities.

It is noted that Sandstrom does not disclose a Tg temperature for the above-mentioned polybutadiene. In a close reexamination, it is found by examiner that **glass transition temperatures of polybutadiene polymers actually fall in the claimed range of $<-60^{\circ}\text{C}$** . In the **Aldrich Chemical catalog**, the compound 18137-4 cis-polybutadiene has a Tg of -102°C and the compound 18138-2 cis, trans-polybutadiene has a Tg of -95°C .

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Whether the material is called “a polybutadiene, a polybutadiene rubber, particles of polybutadiene rubber, or polybutadiene rubber gels” is **simply a matter of nomenclature since the Applicant is entitled to be his/her own lexicographer**. According to MPEP 2173.01, the Applicant can define in the claims whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art. Therefore, Claims 1-3, 5 and 7 are rejected for the same reason recited in the action dated on 03-12-2003.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Well (US 5,905,107) or Sandstrom et al. (US 5,534,574), each individually in view of Wolpers et al. (EP 530,590 with English abstract) for the same reason recited in the action dated on 03-12-2003.

Since the above two 102 rejections by Well or Sandstrom are sustained, the argument used by the Applicants on page 7 at the bottom paragraph as “Well and Sandstrom fail to teach or suggest the claimed invention, therefore even if there was motivation to combine the teachings of Wolpers et al., the combination would not teach each and every element of the claimed invention” cannot stand any more. Therefore, Claim 4 is rejected for the same reason recited in the action dated on 03-12-2003.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al. (US 5,534,574), in view of Well (US 5,905,107) and Kondo et al. (US 5,393,816) for the same reason recited in the action dated on 03-12-2003.

Since the above two 102 rejections by Well or Sandstrom are sustained, the argument used by the Applicants on page 7 at the bottom paragraph as “Well and Sandstrom fail to teach or suggest the claimed invention, therefore even if there was motivation to combine the teachings of Knodo et al., the combination would not teach each and every element of the claimed invention” cannot stand any more. Therefore, Claim 6 is rejected for the same reason recited in the action dated on 03-12-2003.

Conclusion

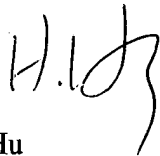
10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Henry S. Hu whose telephone number is (703) 305-4918. The examiner can be reached on Monday through Friday from 9:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (703) 308-2450. The fax number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0661



Henry S. Hu

September 9, 2003



DAVID W. WU
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